

The invention claimed is:

1. A method for stabilizing an RNA molecule against degradation comprising:
  - a) applying a solution to a separation medium having a non-polar separation surface in the presence of a counterion agent, wherein the solution comprises the RNA molecule and an agent capable of catalyzing the degradation of RNA;
  - b) eluting the RNA molecule from the separation medium by passing through the separation medium a mobile phase containing a concentration of organic solvent sufficient to elute the RNA molecule from the separation medium, where the elution is conducted under conditions that result in a substantial separation of the RNA molecule from the agent capable of catalyzing the degradation of RNA; and
  - c) collecting an eluant fraction containing the RNA molecule that is substantially free of the agent capable of catalyzing the degradation of RNA.
2. The method of Claim 1 wherein the agent capable of catalyzing the degradation of RNA is an enzyme.
3. The method of Claim 2 wherein the nuclease is an RNase.
4. The method of Claim 1 wherein a plurality of RNA molecules is stabilized.
5. The method of Claim 1 wherein the RNA molecule is separated from the agent capable of catalyzing RNA degradation by MIPC.
6. The method of Claim 1 wherein the RNA molecule is separated from the agent capable of catalyzing RNA degradation in a batch process.
7. The method of Claim 1 wherein the RNA molecule is separated from the agent capable of catalyzing RNA degradation under conditions wherein the secondary structure of the RNA molecule is substantially denatured.